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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,723	05/16/2001	Hiroataka Nakano	WN-2338	9420
466	7590	11/07/2003		
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202				
EXAMINER DIMYAN, MAGID Y				
ART UNIT		PAPER NUMBER		
2825				

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/855,723

Applicant(s)

NAKANO ET AL.

Examiner

Magid Y Dimyan

Art Unit

2825

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 15, 16, 23 and 25-27 is/are rejected.
- 7) ☒ Claim(s) 13, 14, 17-22 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on May 16, 2000. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 7 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Dole (U.S. Patent No. 6,634,008).
3. Referring to claims 1 and 7, Dole discloses an environment for designing and manufacturing a semiconductor integrated circuit, comprising a data-managing center

Art Unit: 2825

having a database as well as remote design centers (see Figs. 2 – 5; column 1, line 66 to column 2, line 43); a manufacturing center (Fig. 2, block 2515); and an internet and/or intranet connection, connecting all these locations, so as to provide a two-way communication with all the limitations as claimed herein (see Fig. 2; column 4, lines 22 – 47).

4. As for claim 27, see Fig. 12, which cites the use of standard cells (i.e., ASIC designs) as claimed herein.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 15, 16, 23, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dole, in view of Dundle et al (hereinafter, Dundle) – U.S. Patent No. 5,570,291.

7. Referring to claims 2, 3, 4, 5 and 6, the teachings of Dole pertaining to an environment for designing and manufacturing integrated circuits that use a data

managing center, remote design locations, and a factory all connected via the internet are cited in 3 and 4 above, and described in detail in his disclosure. However Dole does not teach the additional limitations of the inclusion of (a) a cost/scheduling database; (b) a reservation status database; and (c) a design/manufacture status database in his invention. Dundle, on the other hand, discloses a system and method for generating estimates and orders for the manufacture of custom items that include job scheduling and tracking, order entry and inventory, and numerous other databases, as claimed herein (see Fig. 2, column 1, lines 19 – 27; column 6, lines 44 – 58; and column 9, lines 30 – 41). Since the use of a cost/scheduling database, a reservation status database and a design/manufacture database would greatly enhance the design and manufacturing operation and management flow of a manufactured product, it would therefore be obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Dole and Dundle to obtain the same inventions as claimed herein.

8. As per dependent claims 8 and 9, see Dole – Fig. 9 (blocks 411 – 415) that explains how layout (place and Route), RC extraction and verification are performed, in order to verify the layout and design. The client, as claimed herein, can also perform these steps.

Art Unit: 2825

9. As per claim 10, see (7) above, and see Dundle, column 12, line 66 to column 13, line 17, which teach how the data-managing center considers costs and schedule, as claimed herein. The same motivation cited in (7) above applies herein.

10. Referring to claims 11 and 12, see (7) and (9) above, as well as Figs. 4A and 4B, which disclose the same limitations of database access and functions as claimed herein. The same motivation cited in (7) above applies herein.

11. As per claim 15, see (7) above as well as Dole – Fig. 3, which show additional limitation of the mirrored design server, as claimed.

12. Referring to claim 16, see (7) above as well as Dole – Fig. 2, which show how the intranet (i.e., virtual private network) is used in this invention, as claimed herein.

13. As per claim 23 and 25, see (7) above, as well as Dole – Figs. 5, 6, 11 and 12 which cite how the developing tools and the commercially available tools needed for the design project are managed and distributed, as claimed herein.

14. Referring to claim 26, see (7) above, as well as Dole Fig. 9; and column 11, line 50 to column 13, line 20, which disclose the design flow from the start of the project to tape out (generating the masks). Also disclosed is how the test vectors (patterns) are generated and used, as claimed.

Allowable Subject Matter

15. Claims 13, 14, 17 - 22 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: these claims pertain to several database-management features used in the system of manufacturing an IC cited above, that are not disclosed in the prior art of record.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,594,799 to Robertson et al discloses a method and system for facilitating IC chip design using remotely located resources, whereby a multi-faceted portal site acts as a server in the context of an n-tier client/server network, and connects electronic designers and design teams to design and verification tool and service providers on the same single portal site.

U.S. Patent No. 6,487,469 to Formenti cites a system and method for project management integration that includes a design database having design data stored in a hierarchical manner; whereby the system further includes a schedule database.

U.S. Patent No. 6,366,874 to Lee et al teaches an HDL-centered design system and methodology that uses HDL specification effectively as a master depository for design intent or knowledge; whereby through a network browser, designers can conveniently navigate or explore a design graphically.

U.S. patent No. 5,778,386 to Lin et al recites a computer-operated method that comprises a sequence of steps for management of data of a manufacturing operation with workstations in several different functional locations.

Pub. No. US 2002/0013634 to Lee discloses a system and method for more effective control and management on remote IC by using the Internet.

U.S. Patent No. 5,878,408 to Van Huben et al cites a data management system and process that is suitable for use in connection with the design of ICs and other elements of manufacture having many parts which need to be developed in a concurrent engineering environment with inputs provided by users and/or systems which can be located anywhere in the world.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magid Y Dimyan whose telephone number is (703) 308-1354. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S Smith can be reached on (703) 308-1323. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Magid Y Dimyan
Examiner
Art Unit 2825

myd
October 28, 2003


VUTHE SIEK
PRIMARY EXAMINER